IN THE CLAIMS:

The status and content of each claim follows.

1-31. (cancelled)

32. (previously presented) A high speed 3D surface imaging camera comprising:

a light projector for selectively illuminating an object, said light projector being configured to project three sequential light beam projections having different colors and different spatially varying intensity patterns from said projector onto said object; and

an image sensor configured to receive reflected light from said object and to generate three separate color image data sets based on said three sequential, differently colored, variable intensity pattern light beam projections, said three separate color image data sets providing said 3D image data of said object.

33. (original) The high speed 3D surface imaging camera of claim 32, wherein said image sensor comprises a plurality of charge-coupled device (CCD) sensors.

34. (previously presented) The high speed 3D surface imaging camera of claim 33, wherein said plurality of CCD sensors comprises 3 CCD monochromatic sensors.

35. (original) The high speed 3D surface imaging camera of claim 32, further comprising a computing device communicatively coupled to said image sensor wherein said

computing device is configured to combine said separate color image data sets into a composite Rainbow-type image of said object.

36. (original) The high speed 3D surface image camera of claim 32, wherein said means for projecting sequential color projections comprises one of a rotatable color wheel, a deformable mirror, or a sequential RGB light emitting diode array.

37. (withdrawn) The high speed 3D surface image camera of claim 36, further comprising:

an array of closely spaced light emitting diodes configured to generate a high density projection pattern; and

driver electronics communicatively coupled to said array of closely spaced light emitting diodes, wherein said driver electronics are configured to synchronize a projection pattern of light from said light emitting diodes with said image sensor to achieve optical quality performance.

38. (withdrawn) The high speed 3D surface image camera of claim 37, wherein said array of closely spaced light emitting diodes is further configured to project said high density projection pattern for a time period not detectible by human eyes.

39. (withdrawn) The high speed 3D surface image camera of claim 38, wherein said time period not detectible by human eyes comprises less than 1/1000 of a second.

40-59. (cancelled)

60. (withdrawn) A 3D camera comprising:

a plurality of monochromatic sensors disposed around an object; and

a plurality of monochromatic light projectors associated with said plurality of monochromatic sensors;

wherein each of said monochromatic sensors is configured to capture images of said object while operating in a unique spectrum band;

said camera being configured to simultaneously acquire a multi-view 3D image of said object.

61. (previously presented) The high speed 3D surface imaging camera of claim 32, further comprising a computing device communicatively coupled to said image sensor, wherein said computing device further comprises a mosaic means configured to combine said three separate color image data sets to form a multi-view 3D image of said object.

62. (previously presented) The high speed 3D surface imaging camera of claim 34, wherein each of said 3 CCD monochromatic sensors comprise a matched narrow-band spectral filter disposed in front of said CCD sensor.

63. (withdrawn) The 3D camera of claim 60, wherein each of said plurality of monochromatic light projectors projects light in a unique spectrum band corresponding to one of said monochromatic sensors.

64. (withdrawn) The 3D camera of claim 63, wherein each of said plurality of monochromatic light projectors is configured to project NIR light, and said monochromatic sensors comprise NIR CCD cameras.

65. (previously presented) A 3D imaging camera comprising:

a light projector for selectively illuminating an object, said light projector being configured to project a number of sequential light beam projections having different wavelengths and different spatially varying intensity patterns from said projector onto said object; and

an image sensor configured to receive reflected light from said object and to generate a number of separate image data sets based on said number of sequential light beam projections, said separate image data sets providing said 3D image data of said object.

66. (currently amended) The 3D imaging camera of claim 65, in which said light projector is further configured to project light beams in the near infrared spectrum, and said image sensor is further configured to receive light in the near infrared spectrum.

67. (currently amended) The 3D imaging camera of claim 65, in which said image sensor is configured to receive said number of sequential light beam projections sequentially within a single frame cycle.

68 (currently amended) The 3D imaging camera of claim 65, in which said image sensor comprises a number of charge-coupled device (CCD) sensors.

69 (currently amended) The 3D imaging camera of claim 65, in which said CCD sensors comprises monochromatic CCD sensors.

70. (currently amended) The 3D imaging camera of claim 65, further comprising a computing device communicatively coupled to said image sensor in which said computing device is configured to combine said separate image data sets into a composite Rainbow-type image of said object.

71. (currently amended) The 3D imaging camera of claim 65, in which each of said charge-coupled device (CCD) sensors comprise a matched narrow-band spectral filter disposed in front of said charge-coupled device (CCD) sensor.

72 (currently amended) The 3D imaging camera of claim 65, in which each of said number of sequential light beam projections projects light in a unique spectrum band corresponding to one of said charge-coupled device (CCD) sensors.

73. (new) The 3D imaging camera of claim 65, wherein said light projector is configured to project three sequential light beam projections each of a different color within the visible spectrum.